Establishing Portfolio Objectives and Goals

CDIAC Investment Workshop

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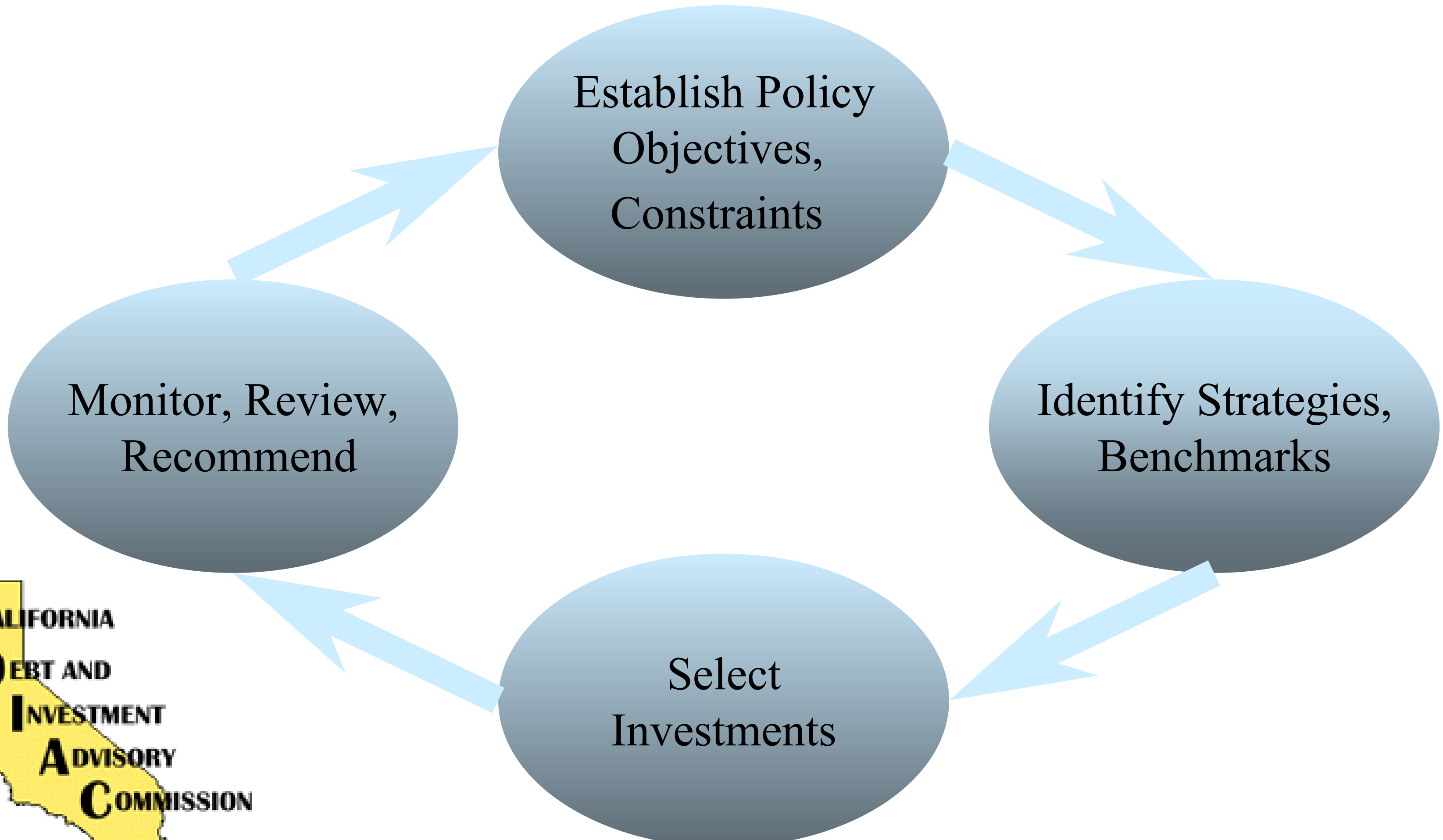
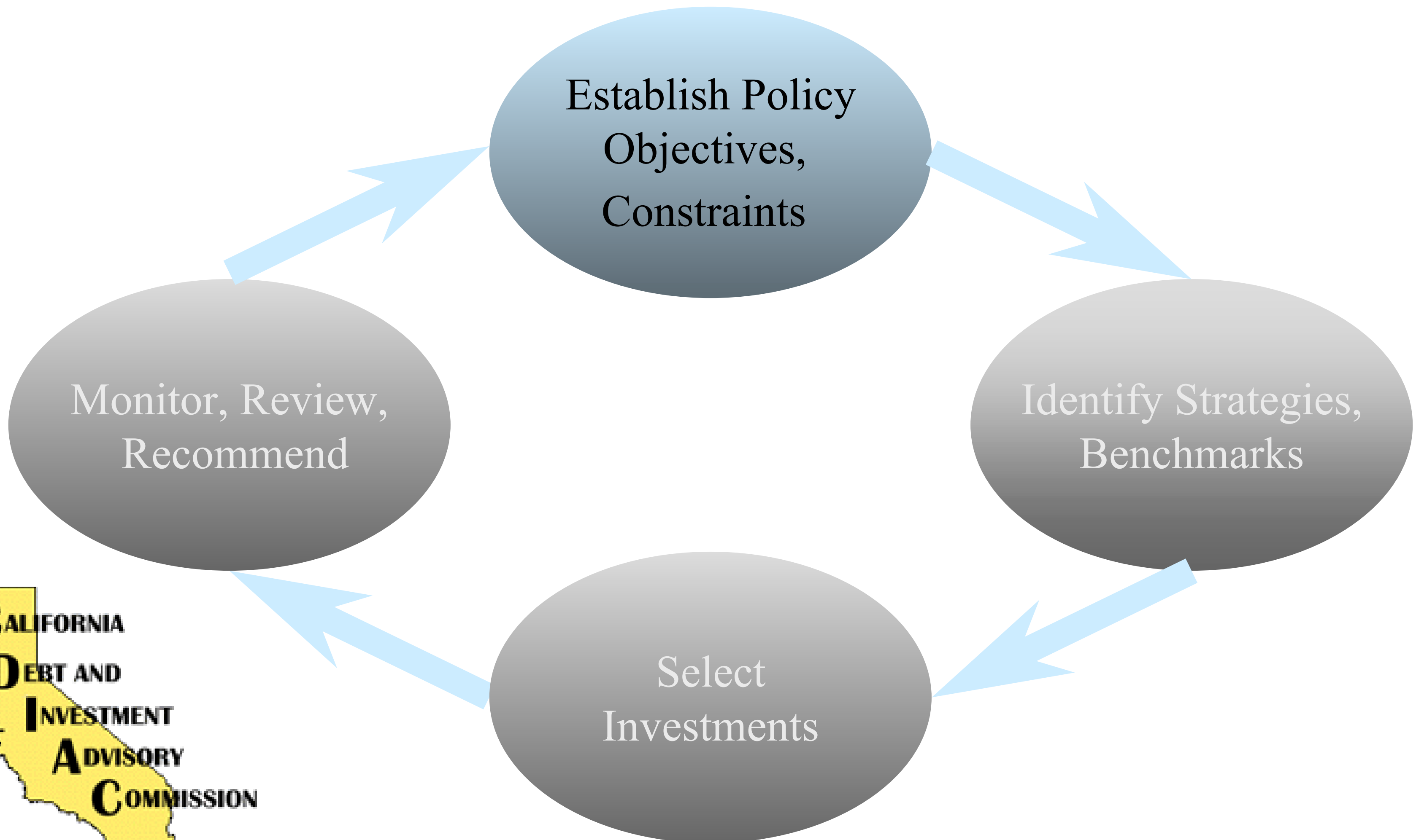
The Cycle of Portfolio Management



Objectives + Constraints = Policy



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Establishing Objectives

- Safety—maintain appropriate level of exposure to risk
- Liquidity
  - Sufficient short-term investments
  - Marketable securities
  - Targeted maturities
  - Extra layer
- Yield (Return,Growth)
  - Income
  - Long-term growth

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Safety: The Relationship Between Risk and Return

- The greater an investor's exposure to *diversified* risk, the higher the return over time.
- The greater an investor's exposure to risk, the higher will be the volatility of return from period to period.

The objective of safety requires establishing investment constraints.

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Establishing Constraints—Identifying Risks

- Liquidity risk
- Market risk
- Reinvestment risk
- Other—political, job, etc.

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Establishing Constraints—Identifying Risk

- Liquidity risk (2 definitions)
  1. The risk that a security can't be sold, if necessary, at a good price
     - Often measured by the difference between the price at which you can buy (offer or ask) and the price at which you can sell (bid)
     - Treasuries, large agency issues, large corporate issues are most liquid
     - Control by avoiding these in liquidity component, and restricting in Reserve

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Establishing Constraints—Identifying Risk

- Liquidity risk (2 definitions)

2. The risk that the portfolio won't provide adequate cashflow for the agency
   - Control by having adequate Liquidity component;
   - Securities in the Reserve should also be readily marketable

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Establishing Constraints—Identifying Risk

- Market risk
  - Securities prices change as interest rates change—in the opposite direction
  - Market risk is best measured as *modified duration*
  - Measure *effective duration* instead when securities have a call feature

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What Is Duration, Anyway?

- Modified duration measures the percent change in price of a security for a 1 percent change in yields.

- Since market prices decline when yields rise, and rise when yields decline, duration is multiplied by –1 and then multiplied by the change in yield.

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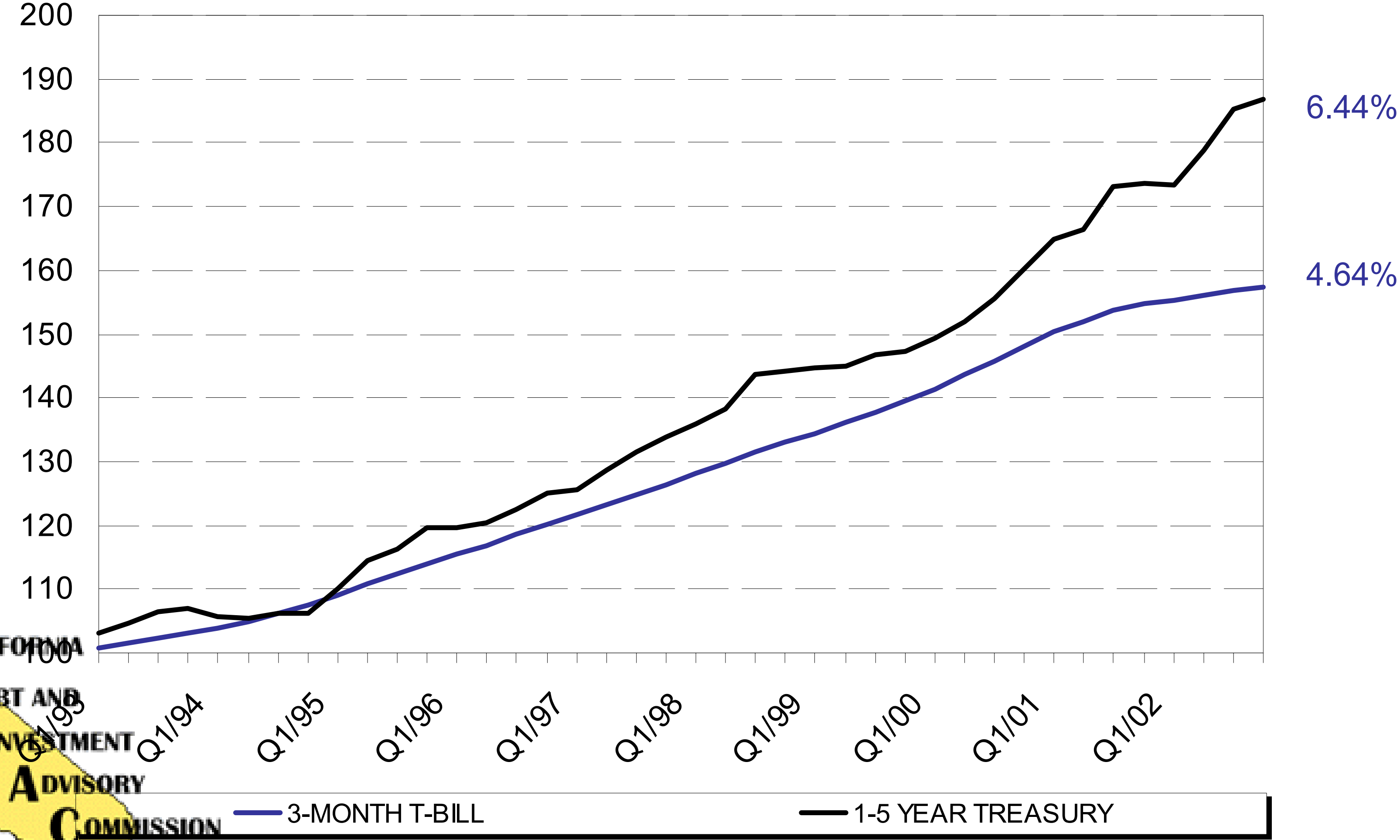
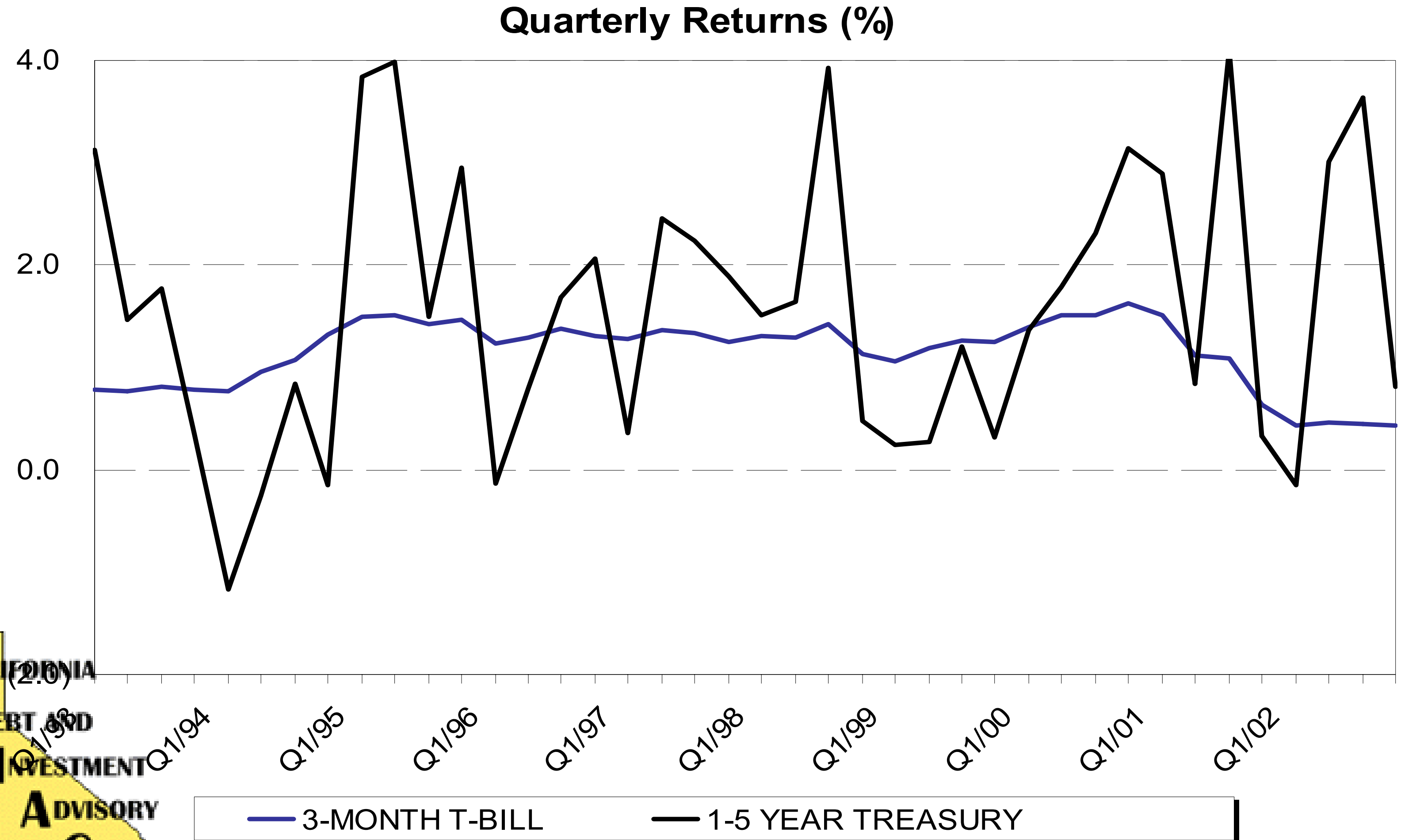
Higher Duration Portfolios Have Higher Expected Returns



Higher Duration Portfolios Have Greater Volatility of Return



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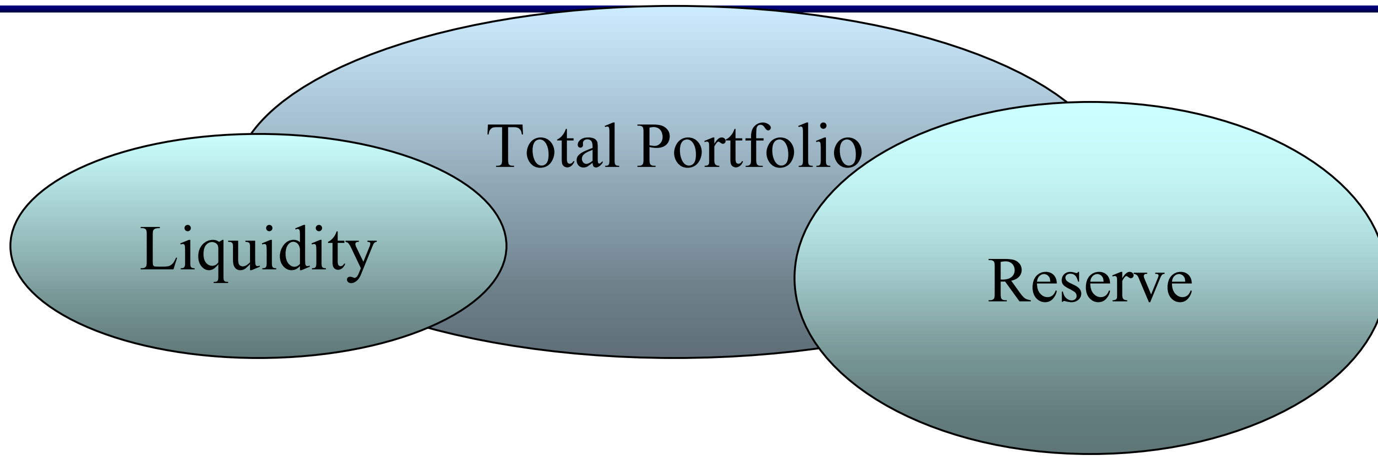
Explicitly Distinguish Between Liquidity and Reserve



- Liquidity Portfolio
  - Designed to meet specific liquidity needs
  - Invested in short-term securities (maximum maturity = one year), LAIF, MMF
  - Average maturity fairly short
- Reserve Portfolio
  - Targeted to highest suitable duration
  - Focused on longer-term securities
  - Not normally used for liquidity, but invested in easily marketable securities, in case it's needed for cash

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Establishing Constraints—Market Risk

- Generally, market value fluctuation is best avoided in the Liquidity component
  - Relatively low duration
  - Maturities targeted to known future cashflows
  - An extra layer of liquidity

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Establishing Constraints—Market Risk in the Reserve

- The higher the modified (effective) duration, the greater will be the return over time.
  - Once cashflow needs are handled in the liquidity component, you can really *GO FOR IT* in the Reserve, subject to
    - State Law
    - Local preferences
    - Appetite for return (yield)
    - Desire for avoiding market value fluctuation
    - …

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Establishing Constraints—Credit Risk/Opportunity

- Investors receive higher yields when they purchase securities from lower rated issuers
  - Agencies vs. Treasuries
  - Corporates vs. Agencies
  - "A" vs. AAA
- Credit ratings change over time
- Yield spreads among different quality sectors vary over time

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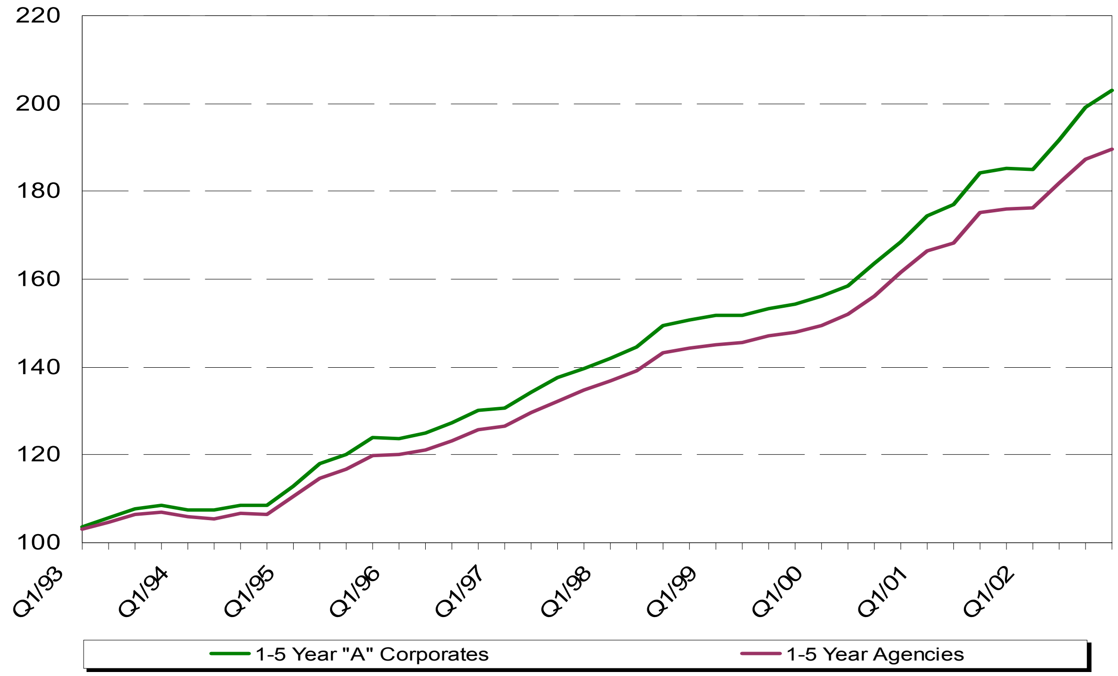
Establishing Constraints—Credit Risk/Opportunity

- Assuming additional credit risk should result in higher return (yield) over time



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Establishing Constraints—Credit Risk/Opportunity

- Assuming credit risk requires that additional resources be devoted to the investment program
  - Moody's/S&P ratings, watch lists, outlook
    - At time of purchase and
    - On a regular basis
  - Supplemented by
    - Third party sources
    - Internally generated credit research

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Establishing Constraints—Reinvestment Risk

- Reinvestment risk: cashflows from a bond must be reinvested at the market rate at the time the cashflow occurs
  - Interest payments
  - Paydowns from mortgage securities
  - Principal from called bonds

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Establishing Constraints—"Other"

- Local preferences
  - Community investing
  - Socially responsible investing
  - Avoiding foreign issues
- Discomfort
  - Certain corporate names (*e.g.*, Estee Lauder)
  - Certain practices (*e.g.*, selling at a loss)
  - Local history (what burned the agency in the past?)

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Summary of Objectives

- Safety
  - Constraints
  - Market, credit, reinvestment, other
- Liquidity
  - Sufficient short-term investments; targeted maturities; marketable securities; extra 'layer.'
- Yield (Return, Growth)
  - Good yield on liquidity component
  - Expectation of greater portfolio growth with some longer-term investments

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Current Conditions Impact Investment Objectives and Goals

- Size of Liquidity component (larger?)
- Size of Reserve component (smaller?)
- Duration of Liquidity component (lower?)
- Duration of Reserve component (?)
- Exposure to reinvestment risk callables extend

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